bifid; subcaudals 66. Posterior maxillary tooth elongate, separated from the others by an interspace. Upper parts uniform blue (in spirits), probably greenish olive in life; the lower uniform white.

Two specimens have been received,—one from Pernambuco.

This species differs from *Coronella Jægeri* by its depressed head, by the form of its vertical shield, and by its isolated posterior maxillary tooth; from *Xenodon typhlus* by a much more slender habit, a specimen of the same length as one of the latter species having only half as large a head. *X. typhlus* has 140–147 ventral shields, and no grooves on the scales.

Length of head ½ inch, of trunk 18 inches, of tail 4½ inches; greatest circumference of the trunk 14 lines,—whilst the circumference of the trunk of a *X. typhlus* of the same total length (22 inches) is 23 lines.

Tropidonotus orientalis. Pl. IX. fig. 3.

Intermediate between *T. natrix* and *T. hydrus*.

Scales in 19 rows, strongly keeled; upper labials seven, the third and fourth entering the orbit; two anterior and three or four posterior oculars; anterior frontals not pointed, rather obtuse in front. Greenish olive, with three series of black spots anteriorly, becoming very indistinct on the middle of the trunk; a black subcrescentic spot on each side of the neck, without yellow; posterior margins of the upper labials and a spot on the temple black. Belly more or less blackish. Three temporal shields, the anterior of which is the largest, in contact with two oculars. Ventral shields 152, anal bifid; subcaudals 64.

Two specimens, an adult and a young one, were sent by Consul Swinhoe from Northern China, together with specimens of *Elaphis dione*.

[To be continued.]

BIBLIOGRAPHICAL NOTICES.

General Outline of the Organization of the Animal Kingdom, and Manual of Comparative Anatomy. By Thomas Rymer Jones, F.R.S., &c. &c. Third Edition. 8vo. London: Van Voorst, 1861.

It is with great pleasure that we have to announce to our readers the appearance of a third and greatly improved edition of Professor Rymer Jones's 'Animal Kingdom.' The fact that a new edition has been so soon called for, considering the scope and character of the book, is of itself a sufficient evidence of its intrinsic value; and although, in our notice of the second edition, we felt bound to point out what appeared to us certain defects in the work, we were quite prepared, from its general excellence, to expect for it a widely extended popularity. We are glad to see that in the present edition those errors and omissions of greater or less importance which were indicated in its predecessor have been rectified and supplied, and that the author has likewise cast off certain relics of an antiquated system to which we particularly directed attention.

As Professor Jones's volume professes to be an outline of the "organization" of animals, he might perhaps claim to be to a certain extent exempt from criticism in respect of his system; but inasmuch as it is a Manual of Comparative Anatomy and Physiology, and the anatomical statements are to be regarded as illustrative of groups rather than individual species, the classification adopted by the author becomes a matter of primary importance; and we took occasion to object, in our notice of the second edition, to the retention of certain groups in certain positions, as having a tendency to confuse the notions of students upon points of high interest in zoology.

In the volume before us, however, nearly all this is changed: the Epizoa, instead of occupying their old anomalous position amongst the Radiata, have been transferred to their true place in the class Crustacea, and have been accompanied in their flight by their old neighbours the Rotifera, which, however, still of course retain the rank of a class; the Cirrhopoda, which Professor Rymer Jones persisted in 1855 in regarding as Molluscan, are likewise transferred to the Annulose series, but (we think) erroneously kept distinct from the Crustacea. Lastly, the Bryozoa have also made their way from their former low position, to take the place which is now almost universally assigned to them amongst the Mollusca. Curiously enough, however, our author has hesitated to adopt another change which appears to us equally warranted with those just mentioned, namely, the transfer of the Entozoa, or Helminthozoa as he now calls them (including, moreover, the *Turbellaria*), to the division of Annulose animals; and probably the extreme supporters of the new school of zoology may think that he would have been equally justified in removing the Echinodermata into the same series. We are not, however, prepared to cavil at the omission of this change, as we hold it to be the duty of the author of any student's manual of science not so much to give his own peculiar and perhaps still problematical views upon any given point, as to bring his general treatment of his subject as much as possible into accordance with the most generally received opinions. In this, with the single exception of the omission of the Helminthozoa, Professor Jones appears to us to have admirably succeeded as far as regards the three higher subkingdoms, to which he gives the names of Homogangliata, Heterogangliata, and Vertebrata; but we think it a pity that he has not followed the same course with the lower forms. Feeling, perhaps, a distrust of the results obtained by some of our more advanced zoologists, and desiring, as he himself says, to avoid unnecessary changes in zoological classification, our author, whilst advancing a certain distance on the route traced by Professors Huxley and Leuckart and followed by Professor Greene in his excellent manual of the Cœlenterata, and accepting the division of the gelatinous Radiata into the two classes of Hydrozoa and Anthozoa, has nevertheless retained the group of Acalephæ in its entirety, as including the *Medusæ* (both naked- and covered-eyed), the *Ctenophora*, and the *Siphonophora*; and, as far as his book is concerned, we find no indication of the arrangement of the animals below the Annulosa into one or more subkingdoms. This we cannot but look upon as a defect; and we also regret to see the term Protozoa applied only to the Sponges and Rhizopoda as distinguished from the Infusoria.

Having thus stated the few objections which we have to make against the new edition of Professor Rymer Jones' work, we may proceed to the more pleasing task of saying a few words in its praise. Besides the important changes in system already adverted to, we may notice the great care and industry displayed by the author in bringing together the more important results of the recent researches of comparative anatomists and physiologists, and the skill with which he has incorporated his new matter with the exceedingly elegant text of the former edition, which is probably familiar to most of our readers. The typographical execution of the work, and the beauty of the woodcuts, the number of which is increased by the addition of several new and important figures, also call for all praise; and it may safely be said that we have no treatise on Comparative Anatomy, in the English language, that can at all compare with it.

Sketches of the Natural History of Ceylon, with narratives and anecdotes illustrative of the habits and instincts of the Mammalia, Birds, Reptiles, Fishes, Insects, &c., including a Monograph of the Elephant and a description of the modes of capturing and training it. By Sir J. Emerson Tennent, K.C.S., LL.D. Small 8vo. London, 1861. Longmans.

As this work consists chiefly of an enlarged reproduction of the Zoological chapters of Sir James Tennent's general description of Ceylon, which we noticed at some length in this Journal (Annals, December 1859) at the time of its appearance, we need do little more than call our readers' attention to the fact of its publication. The author tells us that in preparing his former work for the press he found it necessary to curtail the zoological chapters somewhat, as they would otherwise "have encroached unduly on the space required for other essential topics." In his 'Natural History of Ceylon' he has restored the suppressed passages, consisting to a great extent of anecdotes illustrating the habits of the animals described, and he has also taken the opportunity of introducing some fresh materials. The volume also contains the Treatise on the Elephant, which formed part of the second volume of the larger work; and into this we notice that the author has introduced several fresh anecdotes and remarks.

Next in importance and interest to the chapters on the Elephant are those on the Reptiles and Fishes of Ceylon, the latter being particularly interesting from the curious observations recorded on what we may call the terrestrial life of Fishes. The list of Fishes, drawn up principally by Dr. Günther, and the remarks of Professor Huxley and Dr. Gray on the richness of the Fish-fauna of the Ceylonese seas, and its comparison with that of other regions, are also exceedingly valuable and suggestive. With the invertebrate animals Sir James Tennent seems to be less familiar; but even upon these we find many interesting observations, and each chapter is furnished, by way of appendix, with a list of the species of the group treated of, known to inhabit Ceylon. These lists, although confessedly imperfect, will be, even as they stand, of great advantage to the student of zoological geography, whilst to those who may hereafter take up the investigation of the Natural History of Ceylon they will afford a most valuable aid.

A History of British Sessile-eyed Crustacea. By C. Spence Bate, F.L.S., and J. O. Westwood, M.A., F.L.S. &c. 8vo. London: Van Voorst, 1861. Parts 1–3.

Of two great sections of the class Crustacea the British species have already been admirably elucidated—the Podophthalmous forms by Professor Bell, and the Entomostraca by Dr. Baird. The abnormal forms constituting the group of Cirripeds, which may perhaps with some justice be ranked among the latter, have also received their due share of attention in Mr. Darwin's classical work published by the Ray Society; but there still remains a vast number of species, forming the group Edriophthalma of Latreille, to the arrangement and discrimination of which the British naturalist possesses no other guide than is afforded by Mr. Spence Bate's "Synopsis" published in this Journal (February 1857), and Mr. White's excellent little 'Popular History of British Crustacea.' Under these circumstances we welcome with no common interest the appearance of the work of which the first three parts are now before us, in which Mr. Spence Bate, whose acquaintance with his subject no one can doubt, has called to his aid the artistic talents and great general knowledge of the Articulata possessed by the distinguished Hope Professor at Oxford; and, from the care with which the text of their joint production has evidently been prepared, there now appears every prospect of our soon possessing in a moderate compass a complete description of the British Crustacea. No doubt the numerous species, especially of Entomostraca, which have been discovered in our waters since the publication of the works alluded to at the commencement of this notice, render a revision of them desirable; but in the meanwhile the student of Crustacea will be able to advance far upon his course of investigation with the aids already in his hands.

The classification adopted in the work now under consideration agrees with that given by Mr. Spence Bate in his "Synopsis" of the Amphipoda already referred to; that is to say, he suppresses the order Læmodipoda altogether, and divides the Edriophthalma into the two great orders Amphipoda and Isopoda. The former of these groups he regards as analogous to the Macrura, and the latter to the Brachyura, whilst the Læmodipoda of Latreille are treated as aberrant Amphipods parallel to the *Squillæ* amongst the Podophthalma.

In the introductory description of the general characters of Amphipods, our authors give an explanation of the somewhat cumbrous terminology proposed by Mr. Spence Bate for these animals. We cannot but regard it as a drawback upon the efforts of our living zoologists that scarcely one of them produces a work at all monographic in its nature without the introduction of a host of new terms, which, although they may to a certain extent conduce both to accuracy of language and brevity of description, are still so many obstacles to be got over by the student before he can really make use of the aid afforded him. This, however, is but a minor point; and we gladly pass to the consideration of those characteristics of the book which call for unqualified approval. These consist, on the one hand, in the fulness of the synonymy, the clearness with which the characters and descriptions have been drawn up, and the care with which the British localities for each species are brought together; and on the other, in the admirably executed figures with which Professor Westwood has illustrated the species. The latter consist of finished outlines of the animals, accompanied by numerous magnified figures of characteristic details; and although from their nature necessarily inferior in elegance to many of the woodcuts with which we are familiar in Mr. Van Voorst's publications, they will be found of equal or perhaps greater scientific value. The tail-pieces appended to several of the articles fully maintain the reputation acquired by others in Mr. Van Voorst's series: they are chiefly small views of localities interesting to the British zoologist from their being associated with the labours of those whose names, with him, are as household words.

PROCEEDINGS OF LEARNED SOCIETIES.

ZOOLOGICAL SOCIETY.

June 25, 1861.—Dr. J. E. Gray, F.R.S., V.P., in the Chair.

The following extract was read from a letter, dated Sydney, April 19th, addressed by Dr. G. Bennett, F.Z.S., to the Secretary:—

"You will recollect I mentioned in my 'Gatherings' a specimen of the Semipalmated Goose (*Anseranas melanoleuca*). That bird I found on my return to Sydney alive and well; and it has been presented to me by its owner, Mr. Clarke. In the young bird the legs and mandibles were flesh-colour; in the adult they are of a light reddish-orange colour, except the horny tip of the mandibles, which was of a light-blue colour. The black and white plumage—the former colour predominating—imparts to the bird a very handsome appearance as it walks with a stately tread (not with the waddling gait of the goose) about the yard of my house like one of the Waders. I have, however, from ignorance of its natural habits been the pro-